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THE X FACTOR

Since the release of the first Electone Stage model back in 1970, YAMAHA have specifically added an 'X' into an Electone's designation to denote its prestigious 'flagship' status. Destined for the professional stage YAMAHA's top Electones carry with them awe-inspiring designs and authoritative presence to present and frame the performer. From the legendary GX-1 as owned and played by Stevie Wonder, Keith Emerson (Emerson, Lake and Palmer), Benny Andersson (Abba) and even John Paul Jones from Led Zeppelin, to the ELX-1m and ELS-02X Stagea models, Electone Stage models are widely acclaimed to be the world's most complete musical instruments. In this specially commissioned article, UK Electone player Alex Payler looks at two of the very best. Both represent the pinnacle of their generation and even though nearly two decades set them apart they both stand out to be two of most versatile and expressively powerful electronic musical instruments ever created.

HX-1

Launched in 1986 the YAMAHA HX-1 Electone was, and perhaps still is, the most revolutionary instrument of its type that heralded a new era for the Electone. Featuring a sleek new cutting edge design with a unique angular stance complete with a smart tiltable main control panel and finished in a mixture of slate grey and black, the HX-1 appealed to a whole different kind of audience. The design showcased an ingenius 'modular' approach that allowed the purchaser to mix and match certain main elements of the instrument's basic layout such as keyboard size and pedalboard span as well as different external speakers and benches.

Although YAMAHA had thoughtfully designed five balanced preset systems, the purchaser could literally create a totally personalised instrument to suit their requirements. For the purpose of this article we're talking about the top of the range 'System 1' - boasting two 61 note initial and aftertouch keyboards and the full 25 note initial and aftertouch radiating pedalboard complete with unique angular bench designed to match the HX's clever lines.

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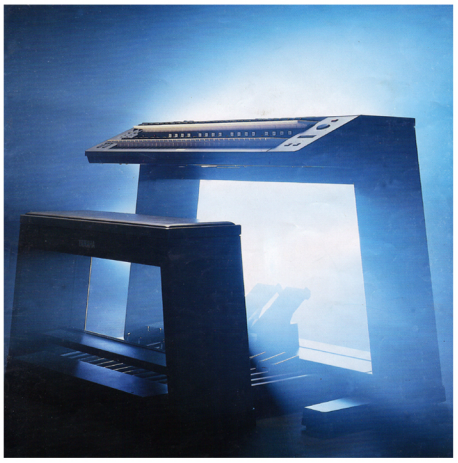
However it certainly wasn't a case of style over substance since technology on the inside was as revolutionary as the exterior. Factory-loaded with hundreds of voices and scores of percussion sounds, the HX-1 featured brand new AWM (Advanced Wave Memory) digital sampling as well as FM (Frequency Modulation) synthesis that had been taken to new limits. Using up to a massive 16 operators (building blocks of data) per voice at a time when the synthesis typically only offered up to 6 operators at best, the FM voicing in the HX must have defied the imagination and was subsequently never beaten!

The HX-1 was also far more programmable and customisable than anything that had come before. Thanks to YAMAHA's new 'Multi-Menu' feature, with the help of an LCD screen, admittedly tiny by today's standards, almost every aspect of the instrument could be edited. This included effect parameters, relative volumes, rhythms and data sequences as well as giving access to literally hundreds of extra FM voices along



with a complete set of organ drawbars to boot! The only function lacking was a built-in voice editor. As an answer YAMAHA released special voice editing software for computers of the time as well as one or two rare expander units giving libraries of new AWM and FM sounds along with everything the then new world of midi could offer - so the sky really was the limit.

One essential addition, however, was a disk drive. The HX was certainly not a 'fly-by-wire' kind of an instrument - needing meticulous setting up to get the absolute best out of it, so storing all those hours of work was an absolute must. The on-board Ram Pack facility although programmable and quick was expensive and limited. The introduction of the floppy disk allowed for a far cheaper storage medium allowing the user to store many more sets of data at a fraction of the price of a single Ram Pack.

As a further departure from previous designs, the HX Electone was made to be durable and relatively portable for touring musicians being able to be stripped down quickly and transported relatively easily - a first for a flagship Electone! With multiple audio outputs (inc. XLR), MIDI, breath controller connectivity, microphone and extra foot controller connections, power outputs for external disk drives and even cable hidey places, make no mistake even by today's standards it is a seriously 'sorted' piece of design.

So what is the HX like today? Well yes the technology has moved on but as an instrument in its own right it somehow still

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feels as complete as it ever did. As a testament to YAMAHA's legendary build quality, most HX's are still out there. The quality of the materials and finish have stood up well and ungigged examples can be picked up for under £1000 and can look very neat indeed. The futuristic design still works and importantly it still sounds good! Not as authentic and detailed as we're now used to but collectively the sounds are big, fat and rich and all layer together very well. Along with dozens of surprisingly realistic FM Voices, worthy of special mention are the thrilling AWM strings as well as the stunning AWM timpani on the pedals - a great big thunderously authentic sound. Combine that with the touch sensitivity and it makes the hairs stand up on the back of your neck! There are times it is easy to forget you're playing a 30 year old instrument.

The AWM rhythm and percussion section of the HX is also still very decent offering an array of authentic and gutsy sampled percussion and whereas the preset rhythm

patterns may not be up to much, brand new patterns can be created from scratch that can sound alive and full of articulation detail. All the percussion can be balanced and individually panned anywhere in the stereo spectrum. In addition each sound can be separately assigned to any individual key or pedal for a live drum solo.

Nearly three decades on and the HX-1 has attained classic status and trust me, in the right hands and feet of a decent player who knows it inside and out utilising its programmable rhythms and other features, it can still show many brand new instruments a thing or two. The HX was the defining moment of a new age of Electone. The humble 'electronic organ' was never the same again...

electone philosophy

"The Electone is an instrument of tremendous versatility. Therefore for the player to have full knowledge of its functions and to try to use such functions as a means of expression is an important factor. However, music comes first. Most important is how effectively you can use such functions to express the music you want to play."

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ELX-1m

Well if the HX-1 was revolutionary; it's probably fair to say the ELX-1m is a more evolutionary tale - but some evolution! Virtually identical in design to the original ELX-1 launched in the early 90's, gone is the strong angular stance of the HX instead replaced with a gently curvaceous design finished in satin black or pearlescent white with deeply lacquered real wood sycamore (or claro walnut on the black version) panel fascias. The stylish main control panel is tiltable (from HX fame and fortune) and as before houses all the main voice sections as well as a large central LCD display screen where all features can be accessed and programmed easily. From the feel of the keyboards and buttons to the fit and finish of each panel and control, the ELX-1m simply exudes style and quality. It somehow processes a real wow factor without having to resort to any over the top curves and glitzy colours. With its flowing lines it manages to look good from every angle including even from an aerial view (with the bench in situ) where it creates a gentle oval - perhaps echoing a concert grand piano's curves. Simply put, for build quality, design and finish - nothing can touch it.

And the beauty isn't just skin deep either - in terms of sound and ease of use the ELX-1m really does show how far technology has come in those years since the HX. With high resolution stereo sampling now the norm, other kinds of even more advanced sound generation have been created and utilised. Further refined 8 operator FM synthesis is still present but now only acts as a gentle enriching agent for each sample to create warmth and richness ensuring the voices continue to blend together very well. But now Virtual Acoustic (known as VA) technology is also present. Just like the FM synthesis before it, VA technology was created by YAMAHA and Stamford University in the USA and is an advanced form of computer modeling. Instead of individual samples layered together, 'VA' voices use complex computer-based 'physical models' that take into account the way acoustic instruments are played by human control. For instance with a wind instrument such a flute, internal calculations are made on the speed of the resonated air, depending on the mouthpiece and embouchure or as on a string instrument the

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the speed of the bow striking the strings. These calculations are then applied to a virtual 'model' of the instrument which has been created with virtual materials i.e. metal or wood depending on the original instrument. The results are different and infinitely variable depending how you play the keys. Instead of a conventional multi-layered sample for each key, the sound changes naturally as if the instrument is truly alive and is being manipulated by you in different ways - just like the real instrument. Amazing technology.

All this control is via two 61 note initial and after touch keyboards which also have another knock out feature - 'Horizon' touch. This allows the pitch of any voice or voices (individually settable) to change when a key or keys are moved literally from side to side. Available on both keyboards, the sensitivity can be set to anywhere in between plus or minus one octave. Bending the notes of an electric guitar or sliding a trombone can now be done and expressed in the most natural and logical way - via the actual key. It has to be tried and heard to be believed and when coupled with the VA voices inparticularly the results are stunningly good - once you've learnt the new technique! No other manufacturer has harnessed such technology and YAMAHA themselves reserve it only for new top end Electones - not even their Professional Synth department get a look in...

Electones don't come any more special than the ELX-1m.....

Needless to say, the ELX-1m is fully programmable and customisable in every way - featuring EVERY sound and feature from its smaller and more mainstream EL-900/m professional spinet models plus many new functions including micro-tuning and dynamic range enhancing effects that have subsequently appeared on YAMAHA's new Stagea Electones. The instrument's operating interface is easy and intuitive with an incredible level of detail that make the EL series still the choice of many performers and players the world over.

All these amazing sound and expressive capabilities make the ELX-1m a formidable instrument - even against the very latest models. Without doubt it is one of the greatest delivery vehicles for orchestral sounds ever. And unlike single keyboards, it is designed and engineered so everything can be achieved and played completely live from just the two hands and two feet of the player. Electones don't come any more special than the ELX-1m.

Conclusion

For obvious reasons to directly compare the ELX-1m and HX-1 just wouldn't be fair. With sounds that go that bit further down the road to total authenticity and expressive capabilities that literally rival the real acoustic instruments, the ELX-1m is undoubtedly the greater of the two instruments here. Noticeably larger and much more luxuriously appointed, put side by side the ELX posesses such a prestigious air to it that it can make the HX appear perhaps a little 'industrial'. Yet there's no doubting how special the HX-1 really still is even today. Without the HX and all of its revolutionary advances the ELX wouldn't be half the instrument it is. And you could never describe the ELX-1m as portable - it's big and heavy (nearly quarter of a ton) and the main instrument does not dismantle for transport. And yet undo a dozen Allen screws and the HX can be in the back of a family car in 10 minutes!

Arranging and playing on both instruments is an interesting but actually equally enjoyable experience. Creating registrations, the art of layering and balancing voices, is quite a different ball game on the HX than it is on the ELX. The HX's FM sounds have to be worked and interpreted correctly to really get them to sing. The ELX-1m's authenticity is indisputable. However the amount of user control and versatility of both instruments is pretty staggering and even though the ELX generally beats the HX hands down in most areas, the HX doesn't exactly feel like its wanting.

Most importantly both instruments have that elusive quality that adorns all of YAMAHA's top end Electones - presence. The ability to make every performance a truly special experience both for the player and the audience. Absolute power without compromise but still keeping the Electone philosophy very much at their core. The HX-1 and ELX-1m personify that philosophy. They have heart as well as technology.

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